

Fig. 1

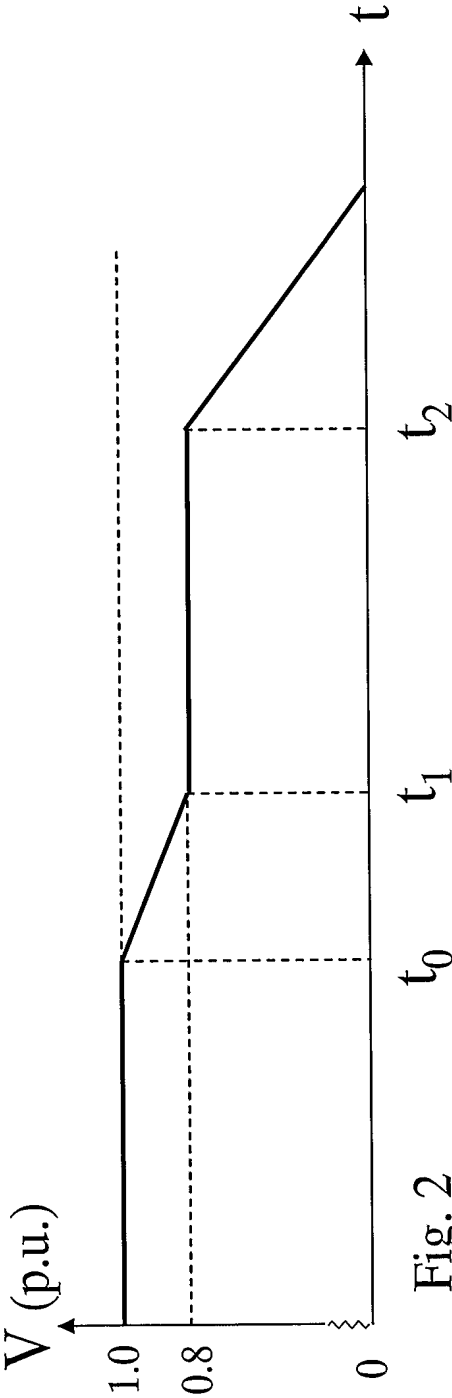


Fig. 2

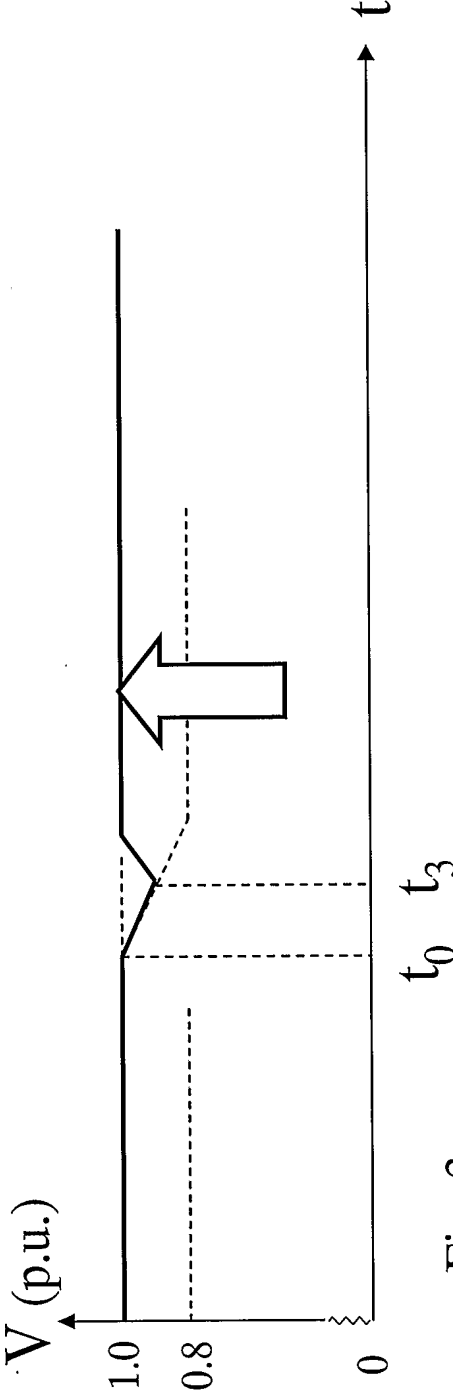


Fig. 3

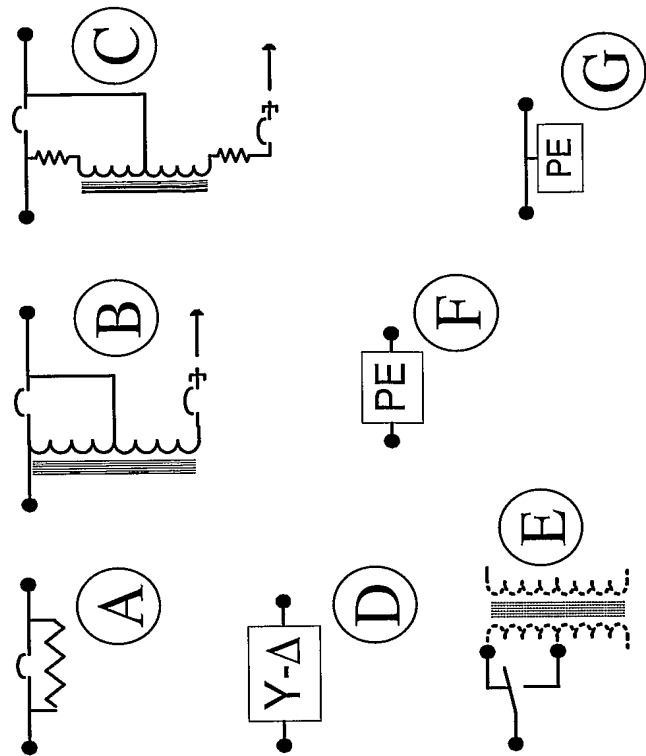


Fig. 5

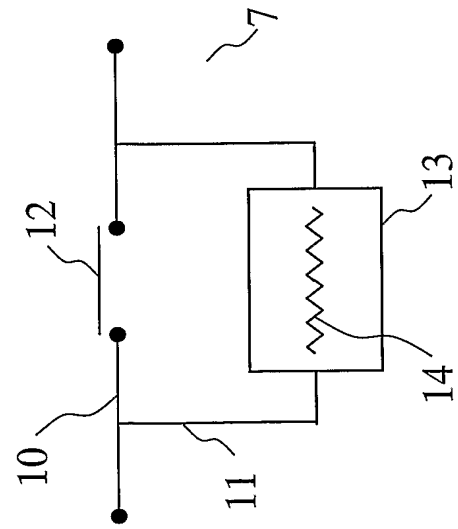


Fig. 4

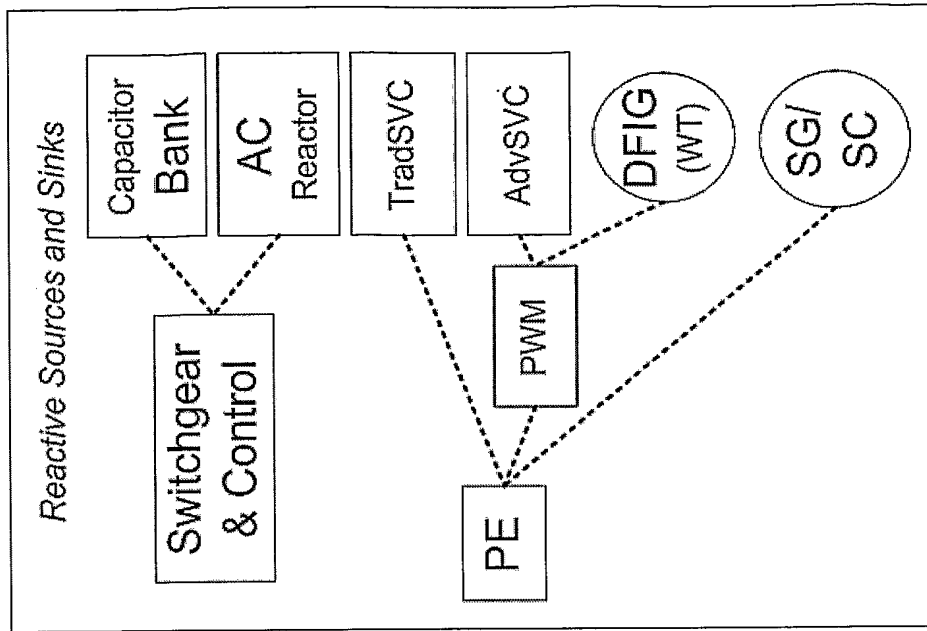
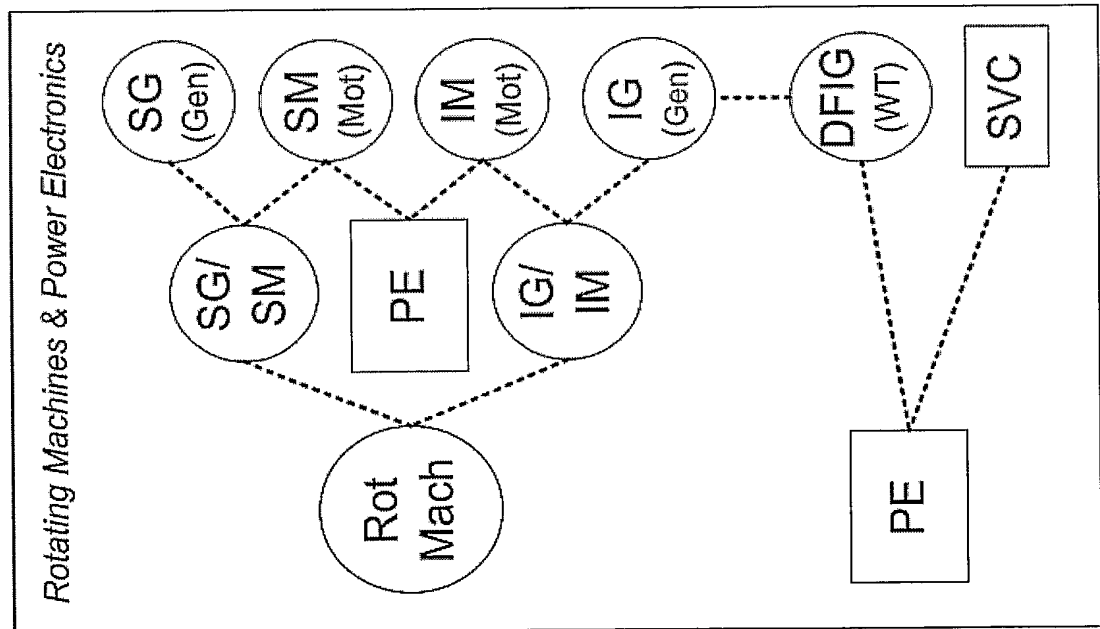
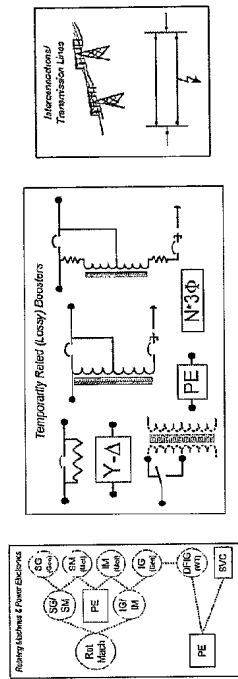


Fig. 6



	<i>Motors</i> <i>Elect. to Mech. Conversion</i>	<i>Motors/Generators</i>	<i>Generators</i> <i>Mech. to Elect. Conversion</i>
1			
Non-synchronous Speed	IM/AM Induction Motors/ Asynchronous Motors	IM/AM Induction Machines/ Asynchronous Machines	IG/AG Induction Generators/ Asynchronous Generators
Synchronous Speed	SM Synchronous Motors	SM Synchronous Machines "One Excitation Converter"	SG Synchronous Generators
Dynamic Phase Shift	D+Q (Two field windings)	"Two Excitation Converters"	D+Q (Two field windings)
Variable Speed (ASDs)	Partly-Rated ASDs	"Excitation & Slip Power Converter"	DFIG/DFSG (Double-Fed)
Total conversion systems	Partly-Rated ASDs	"Armature Power Converter"	DD, IS, ... (Fully-Rated)

Power Electronics

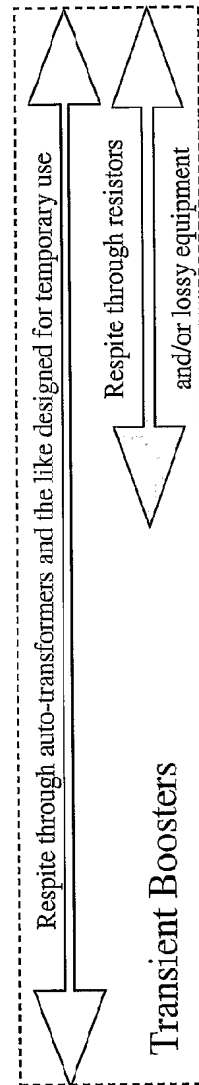
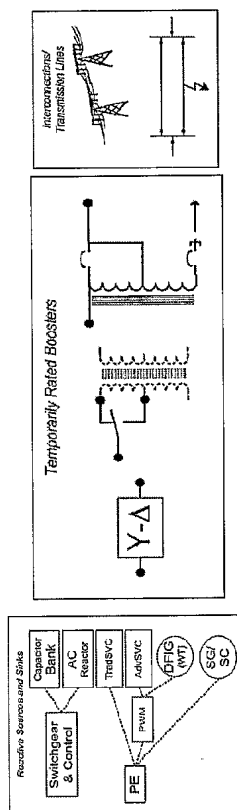


Fig. 7



	1	Inductor Character Reactive Power Consumption	Inductor/Capacitor Character	Capacitor Character Reactive Power Production
(Step-wise) Mechanically Switched	2	AC Reactors Mechanically Switched Shunt Reactors (MSR)	AC Capacitors Mechanically Switched Shunt Capacitors (MSC)	
Static VAr Compensators (SVCs)	3a	AC Reactors Thyristor Controlled/Switched Shunt Reactors (TCR/TSR)	Reactors+Capacitors Thyristor Controlled Shunt Reactors & Capacitors	AC Capacitors Thyristor Switched Shunt Capacitors, TSC
Continuously variable	3b	Fully-Rated SVCs AdvSVC, Statcom, SVC Light™, ... , Active Filters, UPFC, & other FACTS		
Rotating Machines as VAr Compensators	4	(IM) (Induction Machines)	DFIG/DFSG Double-Fed Induction/ Synchronous Generators	SG/SC Synchronous Generators (Synchronous Compensators)

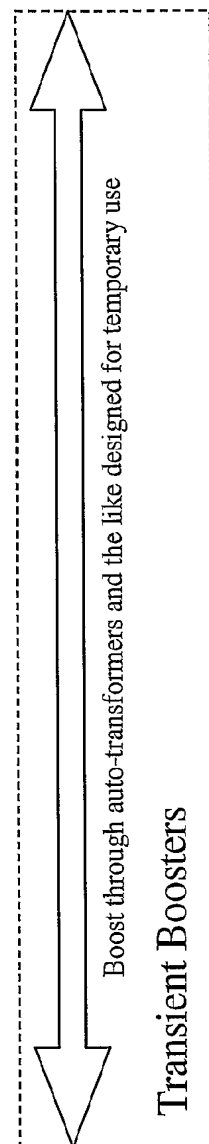


Fig. 8

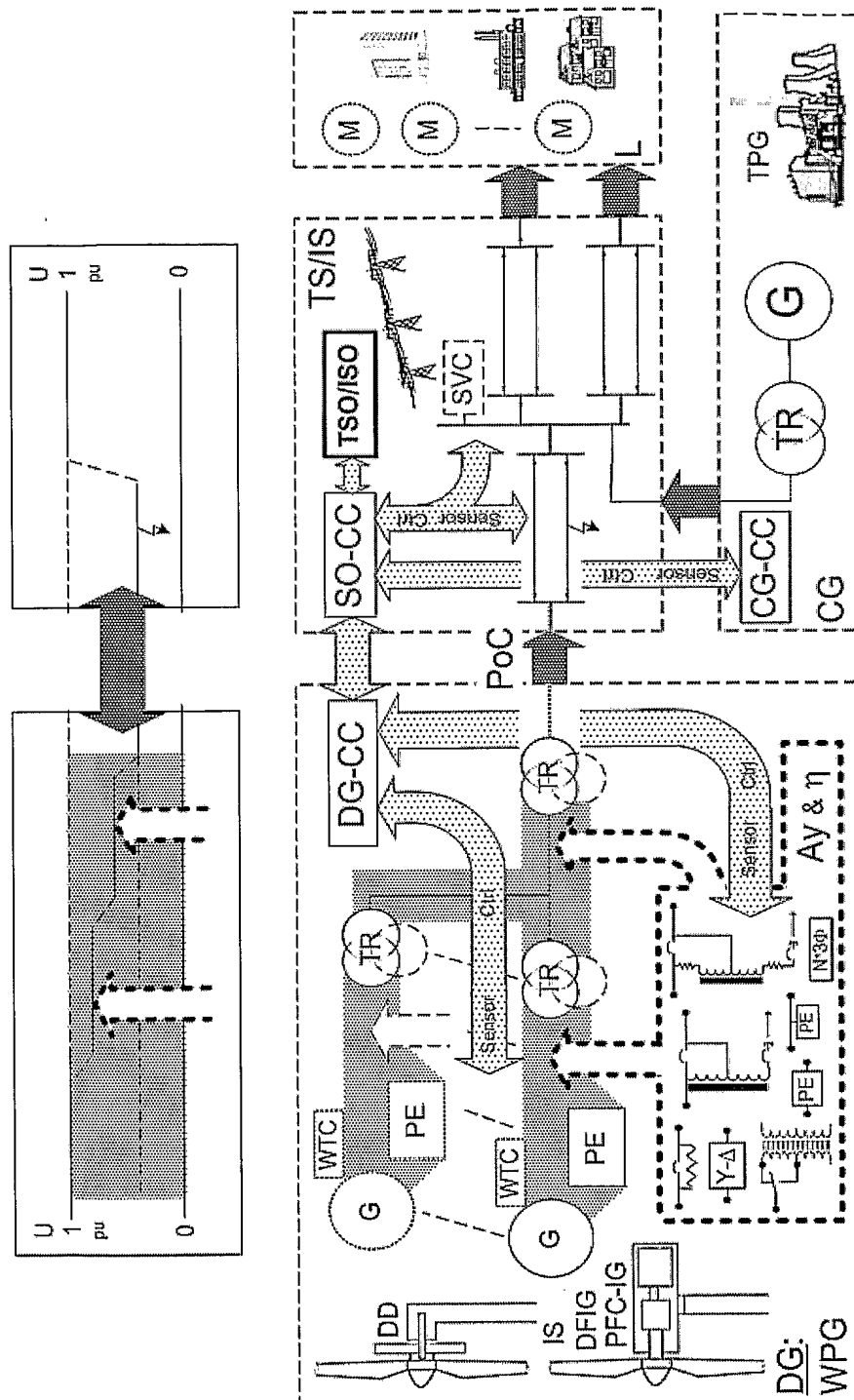


Fig. 9

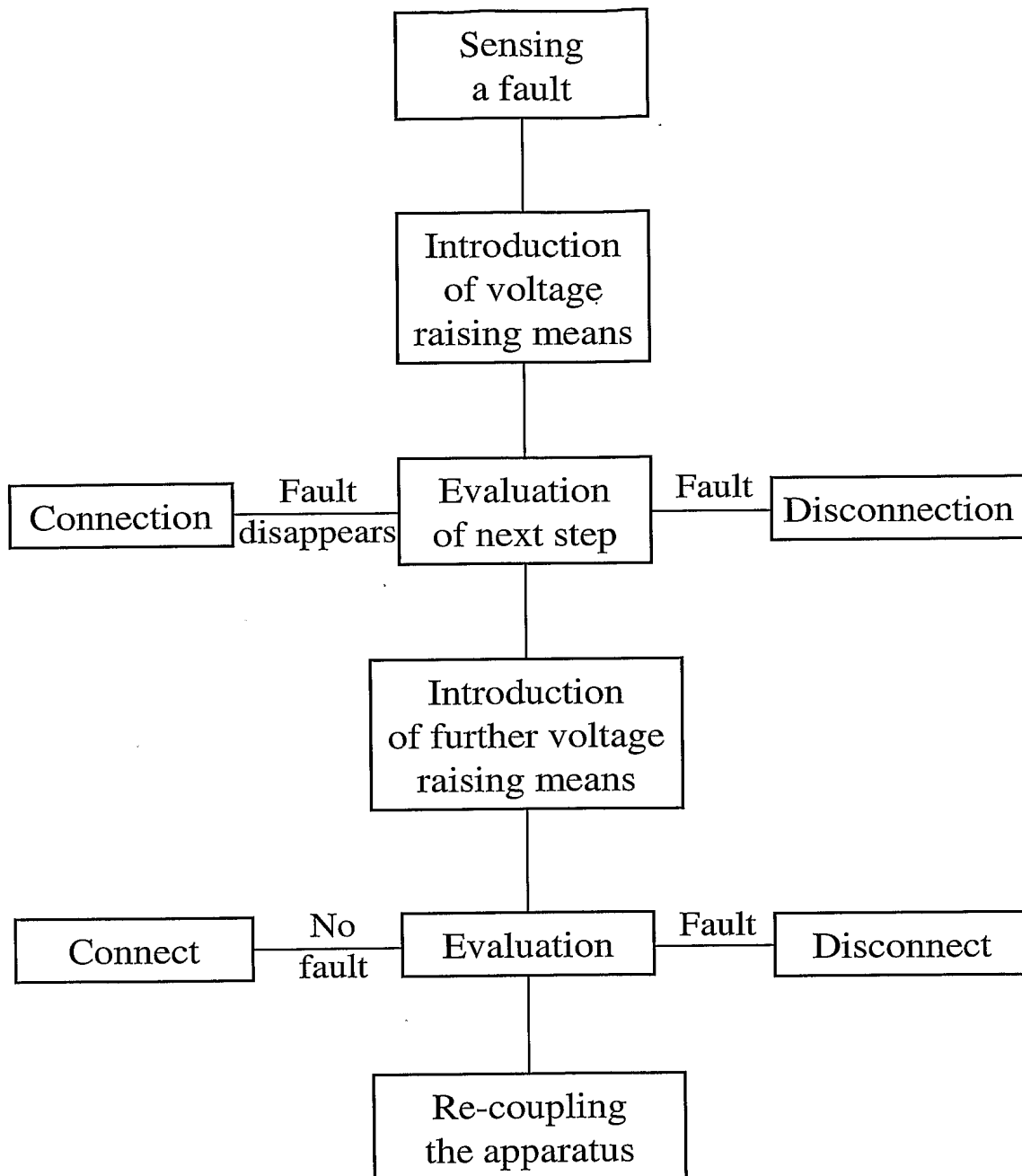


Fig. 10